From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: Brad Mugleston <bmug@gwl.com>
Subject: [3559] Antenna Help - Thanks
Message-ID: <199601291505.AA11177@gp-ipc54.gwl.com>

I would like to thank everyone who replied to my antenna problem. To review:

I built a delta loop in my back yard - 40M nearly horizontal at 18 to 12 feet high. I fed it with RG-8X and had a very narrow SWR that droped down to 3:1 in the 40M range (the SWR for other bands was terrable). On advice of people in this group I added a quarter wave feed line and the SWR droped to 1.2:1 to 1.7:1 over the entire 40M range!!!

Thanks again.

Brad KB0ROL

P.S. Went to the greatest annual dinner Saturday night with the Colorado QRP Club. Great presentation and Lots of great prizes (everybody got at least something, some people got two prizes - like my non ham wife, she did say I could borrow the wire thingie she won (20M J-pole). Can't wait until next year.

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: flanders@GroupZ.net (Jerry Flanders)
Subject: [3576] Antenna Modeling Software for Windows
Message-ID: <199601300138.UAA76319@nss2.CC.Lehigh.EDU>

There is a neat "try-before-buy" package of antenna modeling software
 for windows available at

http://www.funet.fi/pub/ham/antenna/NEC/

the file is NEC-WIN.ZIP

It is about 1.3 megs, so it takes awhile to download.

I just got it recently, and have only started evaluating it. If someone else has already looked it over, I would appreciate hearing from you. I had been looking for a way to visualize the output of the generic mininec3. At first glance, this package looks like a lot more than I was hoping for.

Jerry Flanders   W4UKU   South Carolina   flanders@groupz.net

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: "Glenn E. Scott" <SCOTTY@facade.adm.clarkson.edu>
Subject: [3556] Antenna Tuner
Message-ID: <4393A0E1AD7@FACADE.ADM.CLARKSON.EDU>

I would like some opinions on which type of antenna tuners is the most efficient for qrp work. I know that tuners have losses, but which type has the least losses. No tuner at all is probably the best but I would like to work all the bands with one antenna when I am home. I would use a resonnant antenna while in the field on one given' frequency.

tnx es 73 de glenn N2ULU

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: PITTSTER1@aol.com
Subject: [3545] Cascade help
Message-ID: <960128233546_129957072@emout06.mail.aol.com>

Got the Cascade up and running but it suffers from low output on 75 and 20 . Did the mods for 75 and got the output up to about 7 w over the high end of the band but it is sort of flakey. 20 is way down around .5 w and I am at a total loss as what to do next. are there any mods for 20 aor any one eles haveing the same problems. I did work 2 stations in NY from MI with it on 75 and got good audio reports but sig was about 5/3. I know this thing can do better than that. I wound the torids as per instructions for 20 and have talked with another aeria ham that is haveing the same problems . We even swaped band moduals between units and got the same results. Any sugestions would be welcome thanks and 72

WB8ZOM

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From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: paul1@wizard.ucs.sfu.ca (Paul Erickson)
Subject: [3566] CQ 160 VE7CQK/qrp
Message-ID: <9601291924.AA24142@wizard.ucs.sfu.ca>

>
>   CQ 160 METER CONTEST   1970
>
>
>   Call: VE7CQK   Country: Canada
>   Mode: CW   Category: Single Operator/ QRP
>
>   QSO   QSO PTS STATES COUNTRIES
>
>
>   Totals   20   85   7   1   =   680
>
>
>
> All reports sent were 59(9), unless otherwise noted.
>
> Equipment Description:
>
> Rig: QRP PLUS - 5 watts
>
> Antenna: Random wire up about 20ft
>

First time on 160 running qrp with severe antenna limitations. Any qrpers
out there with suggestions for maximum efficiency in a small city lot? I'm
thinking of a 60ft vertical, but radials will be very limited due to
landlords etc.

Learned lots. Would appreciate exchanging notes with other qrpers.

Golden ear awards to all who heard me.

cheers, Paul
VE7CQK
email: paul1@wizard.ucs.sfu.ca

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: George.Gingell@bbs.abs.net (George Gingell)
Subject: [3571] DATYON ?
Message-ID: <1996Jan29.155301.26170@abs.net>

Chuck,

I hope my information is correct and your calendar is wrong. Otherwise, I
have lost my opportunity to consider Dayton this year. I had to put in my

vacation on the schedule back in December.
QRP DX TU (C) 1986, G. Danny Gingell,K3TKS@bbs.abs.net

You might want to check here for latest information.

Dayton List - listserv@lehigh.edu
              SUBSCRIBE Dayton-l [your name] [your call]

"Dayton 96 - Four Days in May" will be May 16, 17, 18, 19, 1996.

Banquet will be held Friday Evening.

"Four Days in May Committee"

Bob Gobrick,VO1DRB/WA6ERB -
rgobrick@public.compusult.nf.ca

Bruce Muscolino,W6TOY - Technical Papers
Bruce3900@Delphi.com

Paulette Quick,N9OUH -
PLQuick@Facstaff.wisc.edu

--
George Gingell, user of the UniBoard System @ abs.net
E-Mail: George.Gingell@bbs.abs.net
The WB3FFV Amateur Radio BBS - Located in Baltimore, Maryland USA
Supporting the Amateur Radio Hobby, and TCP/IP InterNetworking

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: Joe Everhart <n2cx@voicenet.com>
Subject: [3578] Double fox night Thursday!
Message-ID: <9601300212.AA04774@voicenet.com>

Gang, we're going bi-coastal for this one! Yours truly, N2CX will operate
from the Atlantic coast with the following schedule:

Thursday, February 1, 1996

9:00 pm EST - 9:15 pm EST 7110+/- 3 kHz (longer if there's a pileup)
9:15 pm EST - 11:00 pm EST 7040-7045 kHz

I will attempt 7040, conditions permitting. If my old nemesis qrm springs
up, I may have to go up in frequency. It comes and goes intermittently,
affecting 7035 to 7043 or so. I may have to go as high as 7045 to avoid it

- sorry!

I will call CQ INET FOX on 7110 at about 8 wpm. If yu come back to me slower (or faster), I'll attempt to match your speed. Don't be afraid to call. I spent lots of time back in the 60's on the 40 meter Novice band (crystal controlled, yet) so I know what it's like!

On 7040, I'll intersperse 15 wpm CQ's with 8 wpm so I don't scare anyone off.

If you are not successful, keep trying. I'll make every attempt to work you! We East coast guys have to try harder! We've gotta show the left-coasters and Texans that we folks in the original 13 can do a good job, too :-).

When the pileup clears the second round begins. Stan, N6ULU will hold forth from the Pacific coast. I 'spect he'll remind you all of his participation in the next day or twoo.

I'm getting this message out early so my fellow digesters have plenty of warning. Will repost in a couple of days.
72/73,

Joe E., N2CX

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: kreinbd@ccgate.dl.nec.com (David Kreinberg)
Subject: [3560] F/S GREAT STUFF
Message-ID: <9600298229.AA822937041@smtpgw.ccgate.dl.nec.com>

Gang:

I'm very interested in buying a QRP + rig.
I am therefore testing the waters to see if
there is any interest for my gear ===>

All gear is in excellent condition. Never used
in field or mobile, only in the nice, warm shack.
All have original boxes with manuals/docs.
All prices are firm, I will ship by Priority Mail.

MFJ-9020 20M CW xcvr. 1 yr old in great condx, no
mods, no drift. This was my main rig.
5 watts, RIT. I have always loved this one!
$125.00

MFJ-9420 20M SSB 10 watt xcvr. 1 yr old, only mod was to add headphone connection. Incl. R/S mike. Has a S meter, speech processor, Used very little, but have worked all over U.S. and DX. Neat little rig!
$200.00

OHR EXP II 40M xcvr. Only 2 months old. All built, aligned, ready to go! This is the hot little number you've read about on the QRP-L. Really a great radio! Works great
$100.00

MFJ-407C Deluxe keyer. Only 6 months old. External volume, speed, weight, tone, built-in spkr for off-air practice. Runs off 9v battery or 12vDC. Incl. 12v AC adapter. Orig $70.00

MFJ-722 CW/SSB active filter. Only 6 months old. Nice active filter w/ built-in audio amp. Has notch filtering width control. Has CW filter in steps down to 80 Hz. Does a good job. Incl. 12v AC adapter. Orig $70.00
Will sell the keyer and filter together for
$100.00

That's everything. I'll accept cashier's check or a money order. Please post to me direct. If there is multiple interest, I'll start a list.

72/73 de Dave KK5HA

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: kreinbd@ccgate.dl.nec.com (David Kreinberg)
Subject: [3563] F/S GREAT STUFF
Message-ID: <9600298229.AA822940428@smtpgw.ccgate.dl.nec.com>

Gang:

I'm very interested in buying a QRP + rig.
I am therefore testing the waters to see if
there is any interest for my gear ===>

All gear is in excellent condition. Never used

in field or mobile, only in the nice, warm shack.
All have original boxes with manuals/docs.
All prices are firm, I will ship by Priority Mail.

MFJ-9020 20M CW xcvr. 1 yr old in great condx, no mods, no drift. This was my main rig. 5 watts, RIT. I have always loved this one! $125.00

MFJ-9420 20M SSB 10 watt xcvr. 1 yr old, only mod was to add headphone connection. Incl. R/S mike. Has a S meter, speech processor, Used very little, but have worked all over U.S. and DX. Neat little rig! $200.00

OHR EXP II 40M xcvr. Only 2 months old. All built, aligned, ready to go! This is the hot little number you've read about on the QRP-L. Really a great radio! Works great $100.00

MFJ-407C Deluxe keyer. Only 6 months old. External volume, speed, weight, tone, built-in spkr for off-air practice. Runs off 9v battery or 12vDC. Incl. 12v AC adapter. Orig $70.00

MFJ-722 CW/SSB active filter. Only 6 months old. Nice active filter w/ built-in audio amp. Has notch filtering width control. Has CW filter in steps down to 80 Hz. Does a good job. Incl. 12v AC adapter. Orig $70.00 Will sell the keyer and filter together for $100.00

That's everything. I'll accept cashier's check or a money order. Please post to me direct. If there is multiple interest, I'll start a list.

72/73 de Dave KK5HA

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: Joe Everhart <n2cx@voicenet.com>
Subject: [3577] Fox report and thanks
Message-ID: <9601300157.AA02284@voicenet.com>

Paul,

Listened Saturday night for your beacon with absolutely negative results. :-(. I did not digest Friday's Digest <urp! excuse me> until after the njqrp soire on Saturday afternoon, so I didn't get a chance to listen Fri. evening. Please keep it up.

Also, thanks very much for the certificate for hearing you Dec 31. Gee, it was only 17,150 mi/w. Guess I gotta do better! Thanks also to the NCQRP Assoc. and Jerry (I forget his call) for their efforts in sponsoring the certificate.

Gee, QRP is really getting to be high-powered excitement!

72/73,

Joe E., N2CX

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: PDouglas12@aol.com
Subject: [3562] Friday night 80m Fox Special
Message-ID: <960129111556_306524264@mail02.mail.aol.com>

Here it is, for those of you who have been waiting for an 80 meter Fox opportunity.

 My friend Paul, NA5N will be on 01:15 - 03:00 UTC Feb 3 1996 (for those who are still UTC impaired this is Friday night Feb 2, at 8:15 pm EST) on 40 meters.

I will be on 80 meters at 3.560 mHz starting at 00:15 UTC till 02:00 (this is Friday night USA, and on the East Coast starts 7:15 pm.   I will run till 9:00 pm EST or 0200 UTC.

In tabular form the times in UTC are:

Station	Freq	On UTC	Off UTC
WJ2V	3560	00:15	02:00
NA5N	7045	01:15	03:00

Note there is a 45 min overlap (01:15 - 02:00) , by intention. We will see

where the skip goes by comparing bands at the same time.

Novices will be worked only if they email us that they will be there. I will check up at 3579 for Pixies and other xtal rigs by calling CQ there, say on the half hour at 00:30 and 01:30, if W1AW doesn't swamp my receiver. I will be using a Sierra running 2W on 80, into a full sized tuned fed dipole at about 50'. I know it gets out, as I have been able to reliably check into the NC net on Sundays.

72, and CU there. Preston WJ2V

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: mack@mails.imed.com
Subject: [3572] License Exams
Message-ID: <9600298229.AA822962346@mails.imed.com>

Does anyone know of any license exam sessions in the Houston or southeast Texas area in the immediate future?

I have my code speed up and I want to get to a test before I loose it again. The closest one I know of is Victoria on March 9. I'd rather not wait that long!

Thanks.

Ray Mack
WD5IFS
mack@mails.imed.com

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: dwatson@nskernel.tandem.com (watson_dan)
Subject: [3581] New Kent key to be announced ...
Message-ID: <9601300259.AA12389@razorback.nskernel.tandem.com>

Hi,

I spoke with the folks at R. A. Kent in Mt. Ida, AR, today about the fine twin paddle key I just received. They were telling me something that will be interesting to you backpackers who don't have the $10 plastic keys and a KC1 in your rigs. They are soon to announce a very light key that works on capacitance (no moving parts) and has a built-in keyer. If the quality is up to that of the key I just received, it will be an interesting product.

By the way, they told me that if I ever wore out the twin paddle key, they would give me a new one along with an award for "CW Operator of the World" or something like that. They are probably not worried :-) !

A satisfied customer ...

72,

Dan
AC6PI

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: wdzeares@ix.netcom.com (W. Dennis Zeares)
Subject: [3573] Nice QSO!
Message-ID: <199601292303.PAA02806@ix12.ix.netcom.com>

I was home today at lunch time and decided to call CQ on 14.060. N9DMC returned my call and we had a very nice 30 minute QSO with solid copy. "Zip" is 79 years old and has been a ham for 55 years. He was running 4 watts and I was runing 5 watts. Nice 2xQRP QSO. Copy was at a nice comfortable speed and Zip sends great CW. He has a number of QRP rigs and really enjoys QRP CW. I really enjoyed the QSO, it was really nice to actually "talk" to someone without all the usual lines and a quick sign off. Hope Zip has many, many more years of CW. Thanks Zip.

Just thought I would share this special moment...Hope you all work N9DMC, "Zip" in Butler, IN.

72/73 Dennis K3ETS

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: Mike.Czuhajewski@bbs.abs.net (Mike Czuhajewski)
Subject: [3544] Odenton fest report
Message-ID: <1996Jan28.231502.11654@abs.net>

The Maryland Milliwatts QRP table at the Odenton, MD swapfest turned out well. They put us right next to S&S Engineering as requested; the tables were in the middle of the room but Dick (KA3ZOW) managed to run coax outside without tripping too many people. He had his loaded 40 meter rotary dipole, and as usual made several contacts during the swapfest with one of the S&S rigs he was selling. Although he's a bit out of our local area, he's become a de facto member of the Maryland Milliwatts. (Kathy was there too, N3SAD.)

Manning the MdMW table with me were Bruce, W6TOY, Scott, NF3I, and Bob, WO3B. Bob brought along his QRP Plus as well as an indoor 40 meter loop antenna from 73 magazine a few years back. We sold a lot of copies of the QRP Quarterly and signed up a couple of people for membership, and had several qrp-l "members" stop by. I also gave away a few copies of my qrp-l info sheet so we should have a couple more subscribers shortly.

WO3B had a couple of the Whiterock keys, which were a hit, and said he could have sold the pair five times over if he wanted. W3MKE ("Monkeys Kiss Elephants"--and sometimes even on the first date!) showed up later, bringing along some miniature keys he designed and built, and plans to sell at Dayton. They are slightly smaller overall than the Whiterock, straight keys only, made of molded plastic. They should prove popular, and he'll have quite a few of them.

We still have vague plans to have another Maryland Milliwatt QRP Show and Tell in the next couple of months, assuming we can find a place to hold it, and will put out the word on qrp-l when we do.

73 and Queue Our Pea DE WA8MCQ Maryland Milliwatts #2 [in exchange for agreeing to use the name I came up with, I had to let K3TKS have #1!]
--
Mike Czuhajewski, user of the UniBoard System @ abs.net
E-Mail: Mike.Czuhajewski@bbs.abs.net
The WB3FFV Amateur Radio BBS - Located in Baltimore, Maryland USA
Supporting the Amateur Radio Hobby, and TCP/IP InterNetworking

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: Steve Miller <kg7pv@teleport.com>
Subject: [3547] OHR for sale
Message-ID: <199601290525.VAA05435@desiree.teleport.com>

When I posted my earlier msg about selling the 20 meter OHR rig I forgot that I'd be out of town all week and therefore unable to read the mail. WILL respond to mail about the rig but will be a week from now - sri. 73

Steve Miller KG7PV Norcal # 308, QRP-L #109
Portland, Oregon

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: PAT DOYLE <DOYLEPS@LAKEHURST.NAVY.MIL>
Subject: [3553] QRP+
Message-ID: <s10c872c.017@LAKEHURST.NAVY.MIL>

Does the Index Laboratory's QRP+ have a general
coverage receiver? If not, what kind of coverage
does it have?

KA2GSL

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: cebik@UTKVX.UTCC.UTK.EDU
Subject: [3554] QRP+ Archive
Message-ID: <Pine.PMDF.3.91.960129084744.543550579A-100000@utkvx.utk.edu>

Since the "mass" purchase of Index Lab's QRP+ last July, I have been
saving significant traffic on the rig, covering problems, factory mods,
field mods, accessories, and even the potential for a QRP+ e-mail list.

Since traffic on the QRP+ does not exceed that of any other kit or rig,
it appears that QRP-L can handle discussions of this rig without a
separate list. Like all discussions, it may seem to dominate from time
to time, but no worse than with other rigs. A separate list does not
seem needed.

Since I shall be changing servers soon, transferring from this VAX
machine to a UNIX machine, I must lighten my files. Therefore, I have
removed the 73 messages from my mail files. However, I have created a
single file of these exchanges. It is long: 110KB. It may not have
every possible message, and some of it may be irrelevant to your needs.

However, if you wish a copy, please let me know, and I'll send it to
you. Given the variability of the contents, I hesitate to place it in
the archives. If someone wishes to look at the file, delete the "junk,"
and add anything else of significance, that might make a good item for
the QRP-L archives.

Given pressures on my time, I shall no longer be able to hold future QRP+
files and shall keep only what is most relevant to me personally. Any
QRP+ owner wishing to keep the record complete is welcome to step in and
archive the QRP+ traffic.

No, I am not letting go of my QRP+. As the song says, "with all your
faults, I love you still." (2 gold stars for recognizing the song and 5

gold stars for knowing all the words.)

-73-
LB, W4RNL

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: cebik@UTKVX.UTCC.UTK.EDU
Subject: [3580] QRP+ Request (fwd)
Message-ID: <Pine.PMDF.3.91.960129213217.543502983H-100000@utkvx.utk.edu>

Jim,
Sorry to have to use the list, but the "postmaster" says about the
address on my message to you "Illegal host/domain found" whatever that
means. Could you send me an address the system will accept? File ready
to go.
-73-
LB, W4RNL

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: penc@elan.mrwo.mcgill.ca
Subject: [3561] QRPp
Message-ID: <9601291554.AA16499@elan.mrwo.mcgill.ca>

Gang:

Anyone else not receive their December 1995 QRPp yet? Mine hasn't arrived in
upstate
NY as of today.

Tnx fer BW.

de Rich Penc WK2A
penc@radar.mcgill.ca

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: paul1@wizard.ucs.sfu.ca (Paul Erickson)
Subject: [3569] Slow list serv?
Message-ID: <9601292114.AA25718@wizard.ucs.sfu.ca>

Is anyone else having problems with the server being slow?

cheers, Paul

VE7CQK
email: paul1@wizard.ucs.sfu.ca

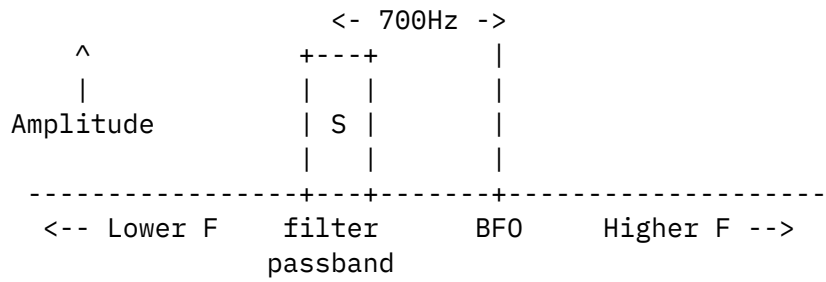
From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: burdick@interval.com (Wayne Burdick)
Subject: [3549] SSB, the Sierra, and a simple ABX improvement
Message-ID: <199601290743.XAA25014@interval.interval.com>

While playing with SSB adapter designs for the Sierra, I realized that it is possible to make one simple change to the receiver circuitry that improves the ABX feature (Adjustable Bandwidth Xtal filter). This change puts the crystal filter on one side of the BFO at ALL settings of the ABX control, eliminating the effect of hearing both sidebands at the widest ABX settings. There are other desireable side-effects of this change that I'll go into later.

First, here's some background on the Sierra receiver, SSB reception and ABX. It seems like a lot of explanation for just one added component, but I think it will be of interest. This information is applicable to other rigs that use crystal filter bending techniques, including the NorCal 40A.

Normal Sierra Filtering

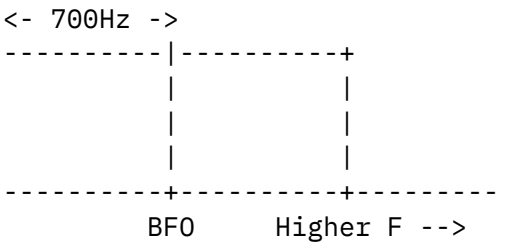
The original Sierra receiver circuit places the BFO signal *above* the crystal filter. This results in the simplest possible BFO circuit configuration: all you need to do is vary the capacitance between pins 6 and 7 of the product detector (an NE602) to set the BFO to the desired pitch. With this circuit configuration, the crystal filter passes the lower sideband, as shown in the idealized drawing below:



With the BFO adjusted as indicated above, a signal (S) that is centered in the crystal passband will have an audible pitch of around 700Hz at the output of the product detector. The filter passband is about 400Hz at -6dB.

Adding the ABX control

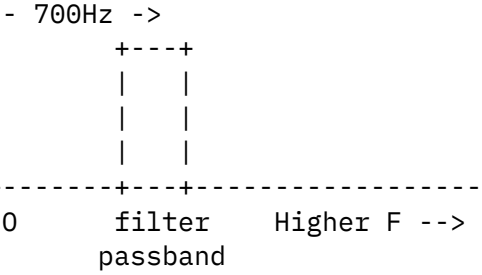
With the addition of the ABX control (which uses varactor diodes to "bend" the crystals), you can vary the width of the filter over a range of about 150 to 1800Hz or so. With the ABX control at around 50%, the varactor diodes act like 270pF capacitors (the same as the capacitors that they replaced), so the filter bandwidth is still about 400Hz. However, when you shift the ABX control to the widest position, the varactors now act like 30pF capacitors, and the crystal filter widens--almost all at the high end. That leaves you with this situation:



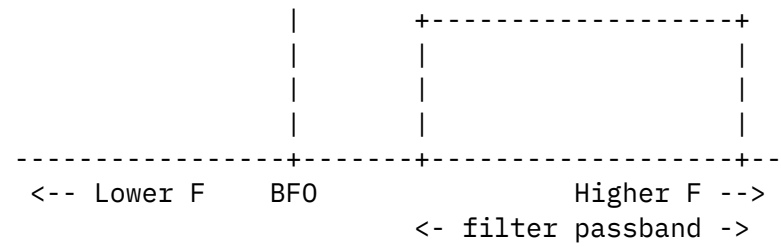
Note that you can now hear signals on *both* sides of zero beat, because the BFO is near the center of the crystal filter's passband. (Of course, you don't have to turn the ABX control to this extreme.)

Moving to upper Sideband

As it turns out, it is easy to shift the BFO down so that its frequency is lower than the range passed by the crystal filter. In this case, the filter now passes the *upper* sideband. With the ABX control set at 50%, here's how things look:



This is exactly what we had before, except we're now listening to the other sideband, which doesn't matter much on CW. However, since the ABX control shifts mostly the high end of the filter's passband, the frequency shift now occurs *away* from the BFO, so that at the wide ABX setting we have this:



This is a very desirable result (hmmm...wish I had thought of this before! Guess you have to evolve one new limb at a time....) It means, most importantly, that you don't hear both sidebands in the wide setting. Second, it means that you can hear a signal at a pitch of 700Hz at ALL settings of the ABX control--there's no need to re-tune the signal you're listening to as you change the filter width. Finally, it means that you can listen to SSB stations without re-adjusting the BFO. You may even find that you like listening to CW at the widest setting at times when QRM is low.

How to make the change

All you need to do is put an appropriate RF choke in series with the BFO crystal, then re-align the BFO. The BFO will now be below the crystal filter frequency.

The BFO is actually a VXO (variable-frequency crystal oscillator), and adding the choke increases the low end of the VXO range. In the case of the Sierra or NorCal 40A, the choke should be about 39uH, although I have successfully used both 33uH and 47uH. You'll have to cut the trace that connects the BFO crystal to pin 6 of the product detector (NE602), then insert the choke in series with the crystal. (On the Wilderness Sierra, this crystal is X6. With the ABX control at the 50% setting, re-adjust the BFO trimmer capacitor as described in the manual. You may also need to re-tweak the transmit offset trimmer.)

A subtle point: sideband inversion

In the previous explanation I mentioned what sideband was passed by the crystal filter in various configurations. However, it is important to remember that some rigs *invert* the sideband because of their mixing scheme.

The Sierra inverts the sideband on 160-15 meters, but not on 12 and 10 meters. (The stock NorCal 40A does not invert.) In the case of the unmodified Sierra the inversion means that you're listening to *upper* sideband on 160-15 meters, even though the filter passes the lower sideband. So, if you make the BFO modification (which I highly recommend), the Sierra will now be receiving lower sideband on 160-15 meters. Try changing your VFO range (using the setting capacitor) and slide up to 40

sideband!

One final note on ABX

If you really do want to listen to SSB on the Sierra, you might want to consider another change as well: adding two more varactors to the ABX circuit. I put two MVAM108 varactors in series with the 270 pF capacitors at the ends of the crystal filter and found that it improved intelligibility of SSB signals somewhat. (You'll also need two 1mH RF chokes and two 47K or 100K resistors to provide proper DC bias to the varactors.) I'll provide more details on this modification after I've used it for a while longer. With any luck, I may have completed the design of a simple Sierra SSB adapter by then.

73,
Wayne
N6KR

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: Norbert.Heyder@erno.de
Subject: [3550] WATERING HOLES - I would30m "band scan
Message-ID: <9601290751.AA05464@mail_s.erno.de>

Hi,

while the last few days I "scanned" the 30 meters day + night for signals beeing present around the clock and obviously used by other services than ham radio. Due to the mode some of these sigs are very broad!

This is a 30m "winter-plot" from north-west germany location
(As far as I remember the summer doesn't change vy much except the strength):

```
        Permanent
 QRG      Signal
------------------
10.140     XX
    39
    38
    37
    36
10.135
    34
```

```
    33
    32     XX
    31
10.130
    29     XX
    28
    27
    26     XX
10.125     XX
    24     XX
    23     XX
    22
    21     XX
10.120
    19
    18     XX
    17     XX
    16
10.115
    14
    13
    12     XX
    11     XX
10.110     XX
     9
     8
     7     XX
     6     XX
10.105     XX
     4
     3
     2
     1
10.100


This shows 10.106 much to salty!

More reports from other regions would help to find "usable"
clear water!

72 Norbert, DL8BDF



From qrp-l@lehigh.edu  Mon Jan 29 22:18:43 1996
From: kellner@usa.acsys.com (Richard G. Kellner)
Subject: [3548] [3294] re: R2/T2
```

Message-ID: <9601290526.AA02493@usa.acsys.com>

> Date: Wed, Jan 24, 1996 08:37
> From: "Ted Kell" <kell@mpac.jsc.nasa.gov>
> To: kanga@brutus.bright.net, qrp-l@Lehigh.EDU
> Subject: [3294] re: R2/T2
> Message-ID: <199601241437.JAA96746@nss2.CC.Lehigh.EDU>
>
> Being not an electronic designer, I would be interested in how you tied these
> two units together to make one unit. I understand that some kind of VFO and a
> phase splitter is required. Also an amp for the T2. How did you do this?
> Also, what is a "'3866"?
>
> Ted Kell, KC5CUW
>
Ted, Bill Kelsey (Kanga) also carries another board from Rick Campbell, KK7B, who designed the R2/T2. This board is called the LM2 (little motherboard 2) and it implements the other stuff needed to tie the R2/T2 together into a CW/SSB rig for one band selected from the 17m to 1.25m bands. I have not seen this board described in the amateur literature, but found out about it on Bill's WWW home page. The LM2 has a VXO/ multiplier/phase shifter, RX preamp, and switching all on a board which is the same size as the miniR2 and the T2. The boards are designed to stack one above the other into a 3-board rig.

I have built the LM2 for 6m, and just received a xtal and fired it up this afternoon ... it worked the first time. I had been shooting for coverage from 50.090 to 50.130, but ended up with 50.1 to 50.14 from the VXO. I'm sure I'll be able to tweak it, and thus end up with part of the CW band on the low side and the SSB calling freq and above on the high end. The one thing missing from what you asked about is the amp for the T2.

The boards are very high quality with solder mask and plated-through holes, although they are not silkscreened for component layout. The kits are a little more challenging than the NorCal SIERRA and CASCADE kits, because the documentation is not step by step, and there are surface-mount components (you need good eyes or optical assistance, and good soldering techniques).

To quote from KK7B "Understanding the interconnections between the functional blocks of this board and the various transmitter and receiver boards requires RF design experience. Such experience is not issued with an Extra class ham license or a BSEE degree. Some no-code tech high school students have it, and some Extra class PhDs in EE do not. ... If your copy of Solid State Design for the Radio Amateur is falling apart at the binding and has soldering iron burns on the pages, then you should have no trouble building a radio using some or all of the functions on an LM2 board."

Probably about 400 members of this list have just taken the above as a

challenge to build up a radio with the *2 boards. I know I've enjoyed it.

73, Rich W5RXP

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: Pete Hardie <hardie@duke.usask.ca>
Subject: [3568] Re: Frenchmen etc.
Message-ID: <Pine.OSF.3.91.960129144959.5453A-100000@duke.usask.ca>

On Mon, 29 Jan 1996 cummings.jim@ic.gc.ca wrote:

> > [This was me - ve5va]
> >It is highly unlikely that Canada, and other countries with similar
> >deregulation, would agree to go back to regulated sub-bands.
>
> .Just another example of how 17,000 French men can be wrong.
>
> -Paul, N9AZ
>
> Pray, tell us how you have come to this conclusion. Your insights
> must be just as amusing as your ignorance of geography as well
> as statisitics.

Just for the record, Paul sent me private mail explaining that the
reference to Frenchmen is an "in joke" that anyone who has gone through
grade school in the U.S. would recognize.

Pete

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: GREGOIRE@ENDOR.COM (ERNEST GREGOIRE)
Subject: [3574] Re: Friday night 80m Fox Special
Message-ID: <199601292358.SAA66574@nss2.CC.Lehigh.EDU>

>Received: from fidoii.CC.Lehigh.EDU [128.180.1.4] by OBIWAN.ENDOR.COM
>   with SMTP-OpenVMS via TCP/IP; Mon, 29 Jan 1996 12:06 EDT
>Received: from fidoii.cc.lehigh.edu ([127.0.0.1]) by fidoii.cc.lehigh.edu
with SMTP id <216688-1>; Mon, 29 Jan 1996 12:05:07 EST
>Message-Id: <960129111556_306524264@mail02.mail.aol.com>
>Reply-To: PDouglas12@aol.com
>Originator: qrp-l@lehigh.edu
>Sender: qrp-l@lehigh.edu
>Precedence: bulk

>From: PDouglas12@aol.com
>To: Multiple recipients of list <qrp-l@lehigh.edu>
>Subject: Friday night 80m Fox Special
>X-Listprocessor-Version: 6.0c -- ListProcessor by Anastasios Kotsikonas
>X-Comment: Low Power Amateur Radio Discussion
>Date: Mon, 29 Jan 1996 12:05:05 EST
>
>Friday night Feb 2, at 8:15 pm EST) on 40
>meters.
>
>72, and CU there. Preston WJ2V
>

Hello Gang,

Friday night marks the start of the Great Northeastern QSO party,taking
in the states of New Hampshire, Vermont, and Maine.

The bands will be alive with activity at 08:15 EST, so good luck finding
the fox. Most folks will be on side band, I imagine, so maybe it will
all work out.

de AA1IK   N.E.-QRP-C. # 202   (Lead by example, It is better to   )
                  QRP-L member #95.   (pull a string than it is to push it.)
Ernie Gregoire
RR 1 Box 221
Canaan, NH. 03741

New England QRP Club, information
available on request by sending me a
 S.A.S.E. or via E-mail.

e-mail : GREGOIRE@ENDOR.COM
packet : AA1IK@WA1WOK.FN43FE.NH.USA

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: KFGlynn@aol.com
Subject: [3575] Re: LOOPS AND OTHER ANTENNAS
Message-ID: <960129195444_209478883@emout05.mail.aol.com>

In a message dated 96-01-28 19:22:09 EST, rohrwerk@netcom.com (John Seboldt)
writes:

>My experience tallies with W1FB's, assuming you're talking a *horizontal*
>loop. A horiz. loop is an *excellent*, *superlative* general-purpose

Hello John,

I would like the loop to be vertical if I can get a tree high enough to
support the apex of the delta. If I bottom corner fed it it should be
vertically polarized. Any idea on how that would go?

Tnx es 73 de Kevin KB2TEO

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: flanders@GroupZ.net (Jerry Flanders)
Subject: [3558] Re: Milliwatting
Message-ID: <199601291530.KAA25687@nss2.CC.Lehigh.EDU>

>Hmmmmmm,

>I could tell about the time I was running a 6AG7 Xtal osc on
>40m, (back when it was a CW only band), and got a pink qsl from
>the FCC back east confirming my good signal on 20m, just a little
>out of the amateur band.......

>But I'll not waist the time doing that   :-)

>73, Ron,
==========

Score one for the "old Timers". Did all you youngsters know 40 was CW-only
in a "previous life"?

I been there, done that, also, Ron. I MEAN EXACTLY (except my rig was a 6V6,
I think). I think back then FCC regularly looked for us where the common
crystals doubled/tripled up to. They found me once also and QSL'ed. I then
learned to only use freq's that doubled/tripled into the next ham band (heh
- heh. Oh, and tune more carefully, too!

Jerry Flanders W4UKU <-Same call since 1951. I was QRP when QRP wasn't "cool".

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: George Dorner <gdorner@kiwi.pyrotechnics.com>
Subject: [3565] Re: NEAT CHEAP DSP FILTER - Thanks for review.R
Message-ID: <Pine.LNX.3.91.960129122056.26573B-100000@kiwi.pyrotechnics.com>

Based on your experience and review here I bought aRS DSP unit at the
WCRA Hamfest here near Chicago yesterday. You were right! It works
about as well as my original W9GR unit and is a lot easier to use.

Thanks Jerry.

geo/w9zsj

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: PAT DOYLE <DOYLEPS@LAKEHURST.NAVY.MIL>
Subject: [3570] RE: No Code Tech -Reply
Message-ID: <s10cf4a0.062@LAKEHURST.NAVY.MIL>

I was out of town for a couple of days last week,
and I see many of you have been busy!

One comment: Sending personal messages about one
person or subgroup to the whole group is like
screaming and cursing at someone in the shopping
mall - unpleasant to witness. A public forum is
not the place for personal squabbles.

Suggestion: Send these types of comments only to
the person concerned.

Tact is desirable.

KA2GSL

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: cummings.jim@ic.gc.ca (Cummings, Jim: DGRB)
Subject: [3555] Re: On the horizon and Off the Wall
Message-ID: <1996Jan29.090800.1255.350034@mspost.ic.gc.ca>

>It is highly unlikely that Canada, and other countries with similar
>deregulation, would agree to go back to regulated sub-bands.

.Just another example of how 17,000 French men can be wrong.

-Paul, N9AZ

Pray, tell us how you have come to this conclusion. Your insights
must be just as amusing as your ignorance of geography as well
as statisitics.

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: Pat Taber <ptaber@logicraft.com>
Subject: [3551] Re: One more PEP!
Message-ID: <199601291238.HAA57928@nss2.CC.Lehigh.EDU>

>Does anybody remember the exact words of the mad hatter?
>Something to the effect that, "when I use a word, it means
>exactly what I want it to mean. No more. And no less."
>
Actually, it was Humpty Dumpty who said that....

>>>==>PStJTT

Patrick Taber Email: ptaber@logicraft.com
Principal Software Engineer Phone: (603) 880-0300
Logicraft Information Services Fax: (603) 880-7229
22 Cotton Road
Nashua N.H. 03063 Also known as: KC1TD

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: George Dorner <gdorner@kiwi.pyrotechnics.com>
Subject: [3564] Re: QRP Field Day?!
Message-ID: <Pine.LNX.3.91.960129120730.26573A-100000@kiwi.pyrotechnics.com>

I've been involved with a QRP Field Day for about 20 years, mostly as one
of the Harper Air Hawks!, that's HAH!. In the best years we use two
1-watt stations from batteries, at least one of which is solar-charged.
It is usually a blast, with several of the local CW buffs often checking
in for a few hours of operation. We hven't been competitive on this in

recent years, but at one time had a thing going with the Zuni Loopers, mostly thru Red, K5VOL. Red's wedding anniversary and a kid's birthday have taken him away from much involvement, but we have had at least one station out there every year. We always experiment with antennas, but our standby is just an east-west withe as long as we can stretch it - usually about 350 feet or more. One year we flew a balloon and we have carried a short tower and beam, too. We do this on the campus of Harper College, the local community college (where I work!).

One of the high points for me is always Sunday morning when I work SSB on 20 with 1 watt. I generally work everyone I call and they don't believe my report comes from one watt.

We used to get good coverage when Ade Weiss wrote about QRP for CQ Magazine. Now many more are using QRP stations on FD, but there's not much special coverage in QST.

Let's get more to try it THIS year.\

geo/w9zsj

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: N1QQV@aol.com
Subject: [3579] Re: QRP Field Day?!
Message-ID: <960129212725_209560797@emout08.mail.aol.com>

The Shoreline Amateur Radio Club here in southern Connecticut ran 3A Batt last Field Day for the first time. A lot of eyes were opened concerning how much power is really needed to make HF contacts and a really great time was had by all. I think we ended up ranked third in the country. With the stipulation that good (not necessarily expensive) antennas are a needed, a QRP Field Day is not only do-able, it's a blast! Try it.

73, Ken

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: N5EM@aol.com
Subject: [3582] Re: QRP Field Day?!
Message-ID: <960129222905_409793017@mail06.mail.aol.com>

In a message dated 96-01-29 21:49:21 EST, you write:

>QRP Field Day is not only do-able, it's a blast! Try it.
>
>73, Ken
>
>
>
>

To second the motion, QRP Field Day is where its at.

And, Field Day is the perfect time to go wild with antennas (just read about the Zuni-Loopers). Many of us live in less than perfect ham radio environments! Field Day is your chance to go out and put up the antennas you can't have the rest of the year. My favorite is a set of 3 Vee beams, with 330 ft. legs, strategically aimed (I can't let you know everything :-)

Read about what others have done in _The QRP Quarterly_. Drag out the antenna books and start designing. Keep it simple. You do have to put this up in less than perfect weather conditions (averages 90's here; thats temp AND humidity). Go find a site . . NOW. Make necessary arrangements to secure it. Get yourself a couple of kindred spirits and gather the gear.

There is nothing sweeter than working 400 or 500 stations using your QRP rig and having someone gasp when you tell them. Comments like "not possible, you've got the strongest signal on the band!" Really makes you feel good.

And, it's really cool when someone calls you after a contact on the wrong Vee beam. You flip the switch and suddenly come up 4 or 5 S units. Talk about a rotator with slew rate!

So start planning now. You're gonna like it a lot.

72
Ed Manuel, N5EM
n5em@aol.com

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: Rick Blank <rblank@legend.txdirect.net>
Subject: [3546] Re: Researching QST Indexes
Message-ID: <199601290505.XAA12260@legend.txdirect.net>

At 11:07 PM 1/28/96 EST, you wrote:

>Because I had been going manually through my back issues of QSTs looking
>for a review of the Ten-Tec Corsair, I was happy to read on page 86 of the
>February, 1996 QST that some kind sole had converted the annual QST indexes
>to ASCII files available on the ARRL Hiram BBS (860-594-0306) as
>QSTSEARC.ZIP. These are also supposed to be available on the internet but
>I could not get into the FTP site because it was allegedly too busy.(FTP to
>oak.oakland.edu, in the directory   /pub3/hamradio/arrl/bbs/programs.)
>
>Anyway, I am forwarding the information to the group because there may
>others out there with an interest in downloading these indexes. When I
>unzipped the indexes I even noticed some old articles on QRP operating and
>equipment. I know many QRP ops use Ten-Tec equipment and I took note of
>numerous reviews of many older Ten-Tec rigs like the Century 21 & 22, 544,
>Argosy, Omni D, Corsair II, and some more recent ones such as the 585
>Paragon and the Omni V. (The Omni VI was reviewed in January, 1993.)
>
>The zipped QSTSEARC.ZIP file is 253,740 bytes and it unzipped to 748,113
>bytes. I downloaded it with "Y Modem" in less than 5 minutes using a
>14,400bps modem, which is pretty old and slow stuff these days.
>Good Luck and 72/73, Allen - AA0YU
>

The ARRL also has available a couple of "Buyer's Guides" that have reviews on much of the equipment tested in QST...these are called "The ARRL Radio Buyer's Sourcebook", and are available in volumes 1 and 2...these are a handy thing for anyone interested in old, or even new, equipment and comparing specs.

The index, QSTSEARCH, though, will probably point out a few that are missed in the guides, which omit several rigs in vol.1 before 1991, and vol.2 is complete with all equipment reviews only from 1991 and 1992....newer gear will have to use the search program...

Rick Blank, KI5SL rblank@txdirect.net
2223 Blanco Road KI5SL@K3WGF.STX.USA.NOAM
San Antonio, Texas 78212 AMSAT NA#26195

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: Paul Christensen <PaulC@jax.se.continental.com>
Subject: [3557] RE: SSB, the Sierra, and a simple ABX improvement
Message-ID: <310D08DF@se.continental.com>

>While playing with SSB adapter designs for the Sierra, I realized that it
>is possible to make one simple change to the receiver circuitry that
>improves the ABX feature (Adjustable Bandwidth Xtal filter). This change

>puts the crystal filter on one side of the BFO at ALL settings of the ABX
>control, eliminating the effect of hearing both sidebands at the widest ABX
>settings.

Wayne:

Thank You!

Inasmuch as I've been dealing with the dual sideband effects of the ABX, I'm grateful to hear that you've designed an elegant, simple solution.

Before I hit my Amidon chart, do you have a core in mind and the turns count for the NorCal 40A?

 -Paul, N9AZ

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: cummings.jim@ic.gc.ca (Cummings, Jim: DGRB)
Subject: [3552] Re: Stats and Stuff (reply)
Message-ID: <1996Jan29.085000.1255.349926@mspost.ic.gc.ca>

Hello Ron:

In response to your notes:

>1. Here, the government claims the ariwaves. We can only use them
>while they say it's OK.

But correct me if I am wrong, but I believe that the government regulates the radio frequency spectrum on behalf of the people, otherwise, you would indeed be living in a dictatorship.

>2. There has been a very large increase in the number of mic's sold
>here over the past 30 or so years and nothing but increases in the
>prices. Not too sure that pure supply and demand really works in the
>amateur field.

True enough, but we are starting to compare apples and oranges, aren't we? Heck, most new rigs come with a mike, not so with the key. And besides, even mikes have evolved, such as electret elements and TT pads... even keys -- there is a greater plethora of them and a lot of memory keyers. But I suspect that in the case of both mikes and keys, if more of them were sold, they would be cheaper still. Funny enough, I have been able to refrain from buying

those nice desk mike -- I pick up as much as I can at flea markets
and rip out the guts and rebuild them - Thus I have a D-104 that
I am very pleased with to operate with my IC751. So even my
frugal habits do not contribute to the lowering of mike prices...

>My 2 cents on cw..... it's pride. If there is nothing about the
>hobby to take pride in, will we really fight very hard to save it?

I think that is the dilema for those who are so fiercely
proud of CW operations. Because it is "attacked", so to
speak, they often react with hyperbole. The problem is
that either because of ignorance (CW is the only mode that
will get through when all others fail) or dog-in-the-
manger attititudes (I did it, so do you) when the claims of
the superiority of CW are found lacking, the the arguements
loose credibility. In other words, CW proponents oftentimes
seem to be their own worst enemy.

It would be better for them to extole CW's virtues, one of the
main ones is that it is fun. As well, there is a certain status felt
having mastered a skill. There are others I am sure. In any case
they would go a long way in maintaining the use of CW by selling
it, rather than making unsubstantiated claims.

cul,

73 and live better digitally
Jim, VE3XJ

From qrp-l@lehigh.edu Mon Jan 29 22:18:43 1996
From: H Smith <hbs@crl.com>
Subject: [3567] Re: Stats and Stuff (reply)
Message-ID: <Pine.SUN.3.91.960129112258.7437B-100000@crl11.crl.com>

Hello All, the CW thread goes on and on and on..... :-)

On Mon, 29 Jan 1996 cummings.jim@ic.gc.ca wrote:
>
> ... various parts deleted ...
>
> I think that is the dilema for those who are so fiercely
> proud of CW operations. Because it is "attacked", so to

> speak, they often react with hyperbole. The problem is
>
> ....
>
> loose credibility. In other words, CW proponents oftentimes
> seem to be their own worst enemy.

I used to cringe when I would read such justifications for CW on those amateur radio newsgroups. (I have long since unsubcribed to them).

At the last civil emergency that I was involved with, I DON'T recall anyone running through the crowd yelling "We need CW operators, NOW!".

>
> It would be better for them to extole CW's virtues, one of the
> main ones is that it is fun. As well, there is a certain status felt
                    ^^^^^^^^^
> having mastered a skill. There are others I am sure. In any case
        ^^^^^^^^^^^^^^^^
There is somthing exciting about turning those dits and dahs, beeps and boops, into meaningful communication. It is a skill that has to be mastered, and it takes time. Am I proud of that skill? You bet I am!

And when I connect with someone else on the Ham bands that also has mastered this skill, to whatever degree, it is as if I have contacted another member of a secret (non-exclusive) "brotherhood".

Years ago, when I was a (young) Army Mars Operator in Germany, I attended a Mars Hamfest in Darmstadt. An old Army Master Sgt. was involved in a CW QSO when a visitor walked up and asked him "Why are you sending morse code and not using the microphone?" The old MSGT responded "Do you understand what I am sending?". The visitor responded "No, I don't". To which the old MSGT replyed "Thats one reason".

And it is for this reason that I am convinced that CW will never go away.

Smitty, NA5K

Henry Smith (hbs@crl.com)